BEHAVIOUR OF REINFORCED CONCRETE BEAM UNDER STATIC LOADING

BY

MOHAMAD SUHAIMI BIN HAJI YAHYA

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ABSTRACT

The study of reinforced concrete beam under static loading with respect to the serviceability and ultimate limits is under taken. A total of four (4) beams of an identical width of 125 mm,150 mm depth and 1400 mm long will be casted . 2 beams with normal concrete 25 N/mm^2 and another 2 beams with concrete 60 N/mm^2. Each beam underwent static load test to failure. Size of main bars and link will be calculated. Spacing and cover will decide based on calculation. Parameters investigated will include deflection and crack pattern both at serviceability and ultimate limits. Ductility of concrete with both grade of concrete also will be determined.

During the experiment, deflection and crack width for both grades of concrete will be record. From this project, the structural behaviour between High Strength Concrete (Grade 60) and normal concrete (Grade 25) can be determined. The results obtained will show differences in structural properties between Grade 60 concrete and Grade 25 concrete.

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